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Cornell Countryman

February, 1956

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Don't Forget the Carrots!



Why
so fussy
about
a fence row

?

MORE THAN ONCE Harry has been chided for the pains he takes lining up a fence row. With all the precision of a navigator he sets the course of that fence, and he doesn't let it vary an inch. You can see him out there, directing the placement of each single post, his eye sighting along the row with the accuracy of a marksman.

To those who kid him about being so fussy, Harry offers some cold logic. It's true, says Harry, that it isn't always necessary to have a fence row just so—that, as long as a fence is strong enough to hold back stock and straight enough to separate fields, it'll do. But, he says, being particular is a kind of

habit with him, and making exceptions whenever it's convenient might spoil him—might break his good habit and make it tough to be particular when it *is* necessary.

Now we of John Deere can see Harry's viewpoint. In fact, we subscribe to his homespun philosophy, and practice it every day. We've found it pays to be particular in every phase of manufacturing—that striving for perfection in *everything* makes it easy to do a precise job when the tolerances are close.

That's why, we figure, we can count so many particular farmers like Harry among our customers.

JOHN DEERE

Moline, Illinois

Secrets of Success in rearing chicks

How to raise more good pullets
from the chicks you start



IN EVERY LOT of chicks it's just natural that some are stronger than others. It depends on several factors, including the *Breeders Mash* fed to the parent birds.

In any case, the poultryman's job is to raise as many as he can . . . suffer the smallest possible mortality.

Management and living conditions make vital contributions but since, in large measure, a bird *IS* what she *EATS*, nutrition is of top importance.

More than just enough

How good a ration is *good enough?* Standards have been established. But both Beacon research and Beacon customers have found *more liberal use* of more expensive key nutrients *pays-off in two ways:*

From a cost-to-feed standpoint *birds need eat less of richer feeds.* This alone can offset quite a difference in initial cost per bag.

From the viewpoint of *protecting your investment* in chicks, equipment and labor . . . it pays to buy feed with a *large margin of safety* in vitamins and high quality ingredients.

Minimize Stress Factors

Feeders have discovered that Beacon's *generous reserves* are a material assistance in resistance to stresses of many kinds.

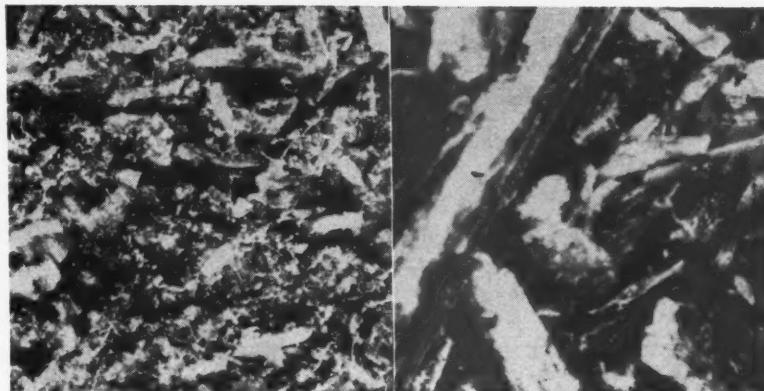
Pullet Growing Costs

In our opinion a difference of a few cents per bird in cost is of less importance than *body condition* at housing time to stand up for a full laying season.

In visiting with practical poultrymen . . . who have tried several feeds . . . we find a very common conclusion . . . "Never had such fine pullets as those raised all the way on Beacon."

This is the year to raise more good pullets from the chicks you start with *Beacon Feeds* and the proven *Beacon Program.*

FEBRUARY, 1956



20% Protein Alfalfa LEAF Meal

You can see the difference in these photographs enlarged 20 times. 20% LEAF meal costs about \$17 more per ton but contains 5% more protein, 12% less fiber, 1% more fat.

Beacon uses ONLY 20% Protein Alfalfa LEAF Meal in all poultry feeds. Furthermore every lot received is analyzed in Beacon laboratories to be sure it contains at least 120,000 units of Vitamin A to the

15% Protein Alfalfa Meal

pound, along with higher levels of other vitamins and protein. You can't judge by color. Some of the greenest looking alfalfa may contain only 75,000 units of A.

This is an example of what we mean by Beacon Quality. The same applies to other ingredients used by Beacon. It's why Beacon costs a bit more per ton than price minded feeds . . . but based on feeding value, it costs the poultryman less to feed quality.

Sound Basic Nutrition means more for your money

You've heard and read a great deal about various "additives" for poultry rations. With all the commotion about these various chemicals, we are apt to forget that the important thing in feeding chickens is still *sound basic nutrition.*

This is even more important with the more efficient feeds. Since birds eat less yet grow faster, any weak spots in the basic formula are far more serious. Former rations which produced relatively slower growth did not require such critical formulation.

We know of no recorded research that indicates any additive can make a good ration out of a poor one.

Some poultrymen pay more attention to whether a ration contains some new

"factor" than whether the ration contains high quality ingredients and is scientifically balanced by people who know how to do it.

Efficient feed formulation is not possible today without research and analytical laboratories staffed by experienced people . . . nor without careful research facilities to make scientific feeding tests. High quality ingredients formulated with skill on the basis of sound basic nutrition . . . give poultrymen more for their money. Not lower cost per 100 lbs. but *lower cost to feed* . . . that's the cost that counts.

The Beacon Milling Company, Inc., Cayuga, N. Y.
YORK, PA. LAUREL, DEL. EASTPORT, N. Y.

From Maine to the Virginias

KIMBER IS HERE

MARSHALL BROTHERS are proud to announce that they are distributors for *Kimber* strain Leghorns in New York State. Kimbers are one of the largest and best breeders in the world.

Kimbers have 125,000 breeders—5 geneticists, 3 pathologists—Have produced 11-million chicks yearly—all sold in California—Kimbers hold the all time Random Sample Record \$8.11 per bird over feed costs.

Kimbers have now expanded to be able to sell outside California.

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Strain Cross Leghorns Rhode Island Reds
Red Rock Crosses

Call or write—Marshall Brothers

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Cornell Class Rings

Now is the time to order your Cornell ring to assure having it by Spring vacation. Orders are taken in the Gift Department where samples are displayed.

FOR MEN

The official ring is 10kt. gold, heavy or medium weight, with imported Carnelian stone. Fine workmanship and extra weight make it outstanding among class rings.

FOR WOMEN

The official ring in 10kt. gold with red sardonyx stone, cut with plain intaglio or encrusted "C" and class numerals. Or, the miniature ring which is an exact replica of the men's ring except for size and numerals.

The Cornell Campus Store

Barnes Hall

Cornell Countryman

Vol. LIII—No. 5

Founded 1903

Incorporated 1914

Member of Agricultural College
Magazines, Associated

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COVER STORY:

DON'T FORGET THE CARROTS!

There is a moment of suspense in the kitchen as budding cuisiniere Nancy J. Sterling takes time out for a taste. Beside her are Gretchen A. Wise, in charge of the carrots, and Marian A. Montgomery, chief potato peeler. The girls are all freshmen in the College of Home Economics.

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Straight to the Country Day



UPPER campus organizations will soon exhibit their wares at the "Straight to the Country" program, February 28 through March 1. Many of the exhibits should interest even the most critical Arts student, but more than just interest will be required to perpetuate better understanding between colleges.

Sure, a tractor in the lobby of the Straight will shift some non-agricultural student into farming gear, just as will a young steer in the Memorial

Room. But unless University students are told how improved tractors and livestock benefit their interests, the exhibits will do little for improving campus relations.

THE root of much misunderstanding between colleges is the vague idea most students have of the purposes of an agricultural education. Some graduates of the College enter fields which are not directly related to agriculture and fewer go into farming than in past years. Even students in the College cannot agree on the purposes of their education. Also, the term agriculture is difficult to define and it is often clouded with a nostalgic sentiment of rural glorification.

But although our interests and ambitions widely differ, we are often associated, and associate ourselves, with the usual cows, tractors, chicks, and

other symbols. They are included in most of the exhibits but illustrate only a few of the interests of some of the students in the College.

MANY of the problems we face in acquiring the understanding of students in other colleges are also being met by the agricultural industry. The problems of poor communication, inadequate definition of interests, and the difficulties resulting from the specialization and urbanization of our society are also encountered by farmers and other workers in agriculture who are trying to improve their public relations.

It is important, therefore, that we take advantage of what opportunities we have for informing other students of the problems and accomplishments in agriculture. If we can succeed in improving our campus relations, the job of bettering the public relations of the agricultural industry will be much easier in the future than it is at present.

The best way we can profit from the "Straight to the Country" program is to attend it and to attempt to explain to other students just what this agri-business is all about.

—A.H.W.

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53 Years of Cornell Journalism

By NATALIE L. GUNDREY '58

AGRICULTURE was rapidly becoming a business venture when the *Cornell Countryman* first appeared in December, 1903, as a periodical for alumnae. The magazine helped to keep former Cornell agriculture students in touch with each other, and informed them of the latest technological developments in that field. Only faculty members wrote for it. Students managed the business, advertising, and circulation departments.

Such people as Liberty Hyde Bailey, former Dean of the College of Agriculture, J. L. Stone, Professor of Farm Practice and Administrator of the College, and Martha Van Rensselaer, founder of home economics education, helped make the magazine a success during its first years.

G. F. WARREN, noted promotor of the science of agricultural economics, who made people aware of farming as a business, was the *Countryman's* first editor. Upon his retirement from the staff, Professor Warren challenged, "I hope the new staff will make our attempts seem feeble, and our issues look like last year's straw hat." Even in those days, the need for broadening and developing agricultural outlook was recognized, and Professor Warren urged staff members to respond to that need. He foretold the coming of organizations, research facilities, and extension work which would help agriculture assume its new role in the economy, and stressed the increasing importance of agricultural journalism.

When the Extension Service was created in 1914 by the Smith-Healy Act, the *Countryman* responded. It left the publishing of technological information to the new organization, and began to broaden its scope of agricultural topics. Gradually, the magazine became completely student operated and edited.

IT began its own program of training students who wished to work on the staff. A student works as a "compet" on the magazine for five weeks, learns about it, and finds where his interests lie. At the end of that time, if he has shown the necessary interest and ability, he is accepted as a staff member.

The main object of the training program is to provide compets with the experiences of good journalistic practices including advertising, editing, proofreading, layout, and circulation. Talks by professional journalists will be given on these topics, and practical experience is acquired by compets as they help put out the magazine. This spring's competition will feature a trip through the printer's workshop to make compets aware of the problems involved in setting up a publication.

Competition for the spring term starts on February 20, and those interested are asked to contact the staff at 490 Roberts Hall as soon as possible.

Inquiring Countryman

QUESTION

How Can Upper Campus Organizations Better Accomplish Their Objectives?

ANSWERS

Mary L. Holmes '56, General Agriculture: Any organization or club is a group of people with a common interest. Unless this interest creates active support of the club's program, the group can't be effective. It takes strong leadership to plan a program that will accomplish the group objectives and interested members to carry it through. When people don't know what their clubs do or what their purpose is, there is an indication of a lack of leadership or ideas to arouse active interest. Evaluation of the program by the entire club as well as professional advice might be a help.

Robert D. Graves '56, Agriculture: Only general goals and objectives of organizations have been established. Clubs and activities would better meet the needs of their members by setting up specific objectives based on what people want to get from each organization. The question of how to get more people interested in activities could be solved through effective program planning based on these objectives. Everyone should have a particular job, thus making each person an important part of the organization.

Ruth A. Morse '56, Extension Teaching: Clubs and organizations should plan their programs more carefully. With thought, programs could be of higher quality and better member interest could be kept. This means having a variety of constructive and recreational projects as well as having authorities speak to the group on their major fields of interest. Joint meetings of activities might be of value.

Helen L. Grant '56, Home Economics: Organizations on the upper campus cannot be effective without the active participation of the students themselves. No matter how high the objectives of an activity are, they are useless if students fail to take advantage of them. It is up to the individual student to take responsibilities and initiative necessary to make the club a success. If each student would take this upon himself, instead of leaving it for someone else, he would be surprised at how much he is benefiting.

Herbert H. Stoevener '58, General Farming: Undoubtedly, there is room for improvement in many of the organizations on the upper campus but I don't consider this situation to be a problem. Each student has a variety of extra-curricular activities offered and he can choose those which best suit his ideals and interests. If campus activities provide such an opportunity for students, then I believe they fulfill their purpose.

Robert W. Taylor '56, Extension Teaching: Only after clearly defining their objectives can clubs become more effective. Greater publicity should be used to inform present members and others interested of the programs offered. Periodical re-evaluation of the program is essential to determine a club's effectiveness.

BABCOCK'S

HEALTHY CHICK NEWS

Have Your Pullets Hit 90% Production This Year?

If Not, Here's the Reason.

1. **Poor rearing:** You can't overcrowd chicks, load them down with disease and, by magic, make good layers out of them. A pullet has to be strong and healthy to produce continuously. She must have clean "insides."

2. **Crowded in laying house:** Each of your pullets needs 3 sq. ft. of floor space to lay well. If you crowd them, the more timid birds are forced away from the feed or water and can't lay. Usually, with today's well bred White Leghorn pullets, each good pullet will lay about 90% to 95% at her peak. Therefore, when you get only 70% production, it's because a lot of birds are simply out of production. If well reared, they are not culled. You aren't giving them a chance to lay.

3. **Not enough water to drink:** Recently, I saw de-beaked pullets trying to drink water out of little water cups with scarcely half an inch of water in them. If a pullet's lower beak grows out too far, how can she drink? She can smell the water, she can see it, she can hear it. But she can't drink it. I believe one eight-foot water trough for each 300 pullets is about right. Use a trough 6" to 10" wide and 4" to 6" deep. Keep 3" of water in the trough. Be sure it's easy for pullets to drink. To get high lay, your pullets should be able to get their wattles in the water and flip it around the pen. Scrub every water trough every day with a scrub brush and refill with clean water. If you attempt to clean troughs every other day, you never can remember for sure when you did clean them last. Your pullets don't like dirty water. They won't drink it until forced to. The more good clean water you can get into a flock of pullets, the more eggs you'll gather. Water's almost free!

4. **Cheap Feed:** Cheap feeds don't usually produce 90% production. Your own grains ground and mixed with a supplement won't usually produce 90% production. Just the same, it's probably profitable to feed them this way and to get a few less eggs. We feed our own grain as scratch and buy the best mashes we can get. By the way, I prefer mash over "crumbles." Crumbles encourage cannibalism.

5. **Not enough feeder space:** You should have at least 3 six-foot hoppers for each 100 pullets.

6. **Not enough lights:** To get 90% at this time of year, you usually need 14 to 16 hours of light per day.

7. **Colds, chicken pox, bronchitis, etc.,** will ruin your production. Please write me for recommendations.

8. **Not enough nests:** I figure one nest for each four pullets is about right for the layers we have today. Also, more nests help prevent "floor eggs" and cracks.

9. **You—A Stranger in the Hen House?** Take care of pullets regularly. Talk to them. Fuss over them. Be observing.

Not All Strains Will Hit 90% Production.

Many strains won't lay up to 90% no matter what you do. When everything is perfect, Babcock Leghorns, both our **Barbaras** and our **Bessies**, will lay 90%, sometimes even better. We figure 90% for one month, 85% for next two months, then 75% for next nine or ten months. I believe our **Babcock Barbaras** will lay continuously for more months than most any strain. They are a strong, rugged bird, very resistant to disease, can be moved from one pen to another and keep right on laying for months on end.

The **Babcock Bessies** will lay about the same as the **Babcock Barbaras** and will start in with a larger egg than the **Barbaras**.

If you can't get your pullets "to peak" at 90% production, why not try Babcock's. Follow my instructions and get 90% production. You might as well — others can — so can you.

Babcock Catalog: I know this is immodest, but I think we have the most interesting catalog in the poultry industry. Please send the coupon below for your copy.

Sincerely,

Monroe C. Babcock



High Pen at Oklahoma This Year

This year we had high pen at the Oklahoma Egg Laying Test. Our record: 3899 Eggs and 3985.75 Points or 299.96 eggs and 306.60 points per bird. Also, this year we won the Poultry Tribune Trophy — for high egg laying test average in U. S. By the way, we had 100% livability for the whole 12 months on all pens entered in Egg Laying Tests in 1954-55.

Egg Laying Tests where only 13 highly selected grown pullets are entered each year are not a good measure of any strain. Therefore, we are going to enter only Random Sample Tests from now on.

Dear Babcock:

Date

- Please send me your catalog.
- Please send me letters on how to take better care of my layers.
- Please send me your ideas on watering cage layers.

Name

Address

Mail to

Babcock Poultry Farm, Inc.,

Route 3B, Ithaca, N. Y.



Pakistan Day in Cortland. Mr. West presents a turkey from his farm to the Pakistan Ambassador while Mayor Kerr, Cortland, looks on.

October 19, 1953 and one of the biggest town parades since V-J Day was staged. The newly appointed Pakistan ambassador rode in the parade—his six-yard long turban of white and gold flying behind him. "Welcome Mr. Ambassador" was posted all over the store windows and green and white Pakistan flags flew from the lampposts. The day was declared a business holiday and every store closed at noon as 10,000 Cortlanders lined the streets to welcome their guest.

In return for Cortland's hospitality, the Pakistan government invited the mayor and some citizens to visit their country to learn Pakistan "ways" at first hand. Local industries, churches, and clubs in Cortland raised funds to finance the trip. Finally, with free transportation on the Pan-American Airlines, the Cortland delegation left in March, 1954 for the 11,000 mile journey to Pershawar, Pakistan.

In Pakistan, the Cortlanders observed the 2,000 year old civilization and the mysterious Moslem culture; the force behind Pakistan's progress. They were guests of the Pershawar people who welcomed them with a parade and tour of the city. Mayor Kerr was sworn in as Mayor of Pershawar and he signed local bills just as he had done in Cortland.

THE group returned home in April, 1954, and began work on new ideas for improving the understanding between our country and Pakistan. Only two months ago, the Rotary Club of Cortland sent 99 volumes of CARE books to the Rotary Club of Pershawar. At the same time, the Cortland Public Library donated 100 volumes of current fiction and other literature to the University of Pershawar library.

BUT the citizens of Cortland were not discouraged. They arranged for the Attorney General of Pakistan to speak at the banquet in May, 1953. He spoke before the Cortlanders and also toured the scenic Skaneateles Lake region, played tennis, inspected the Brockway Motors plant and met with the county lawyers.

Enthusiasm for the program increased and soon six Pakistan farmers were guests of the local Grange at a meeting of top state officials. Also, the city newspaper, *The Cortland Standard*, played host to the editor of the Pakistan *Civil and Military Gazette*.

Pakistan Day was acclaimed for

Grass Roots Diplomacy

Cortland, New York, and Pershawar, Pakistan, cooperate to better mutual understanding.

By DIXIE C. DAVIS '56

MOST foreigners acquire their impressions of the United States from our diplomats, tourists, policy decisions, and media of mass communications. But they might gain a more realistic view of our country through programs such as the one carried out by the citizens of Cortland.

Conveying American ideals and culture to foreigners is not an easy job. How can our "way of life" be defined so that foreigners can understand it? What picture of the United States should foreigners believe—Democrats or Republicans; unions or management; farmers or factory workers? And when they are told something, can they interpret it with the perspective needed to draw truthful conclusions?

For example, if people in other countries saw the motion picture "The Blackboard Jungle," some of them might very well conclude that most American youngsters are delinquents, that most of our streets have trains running above them, and that "Shake, Rattle and Roll" is typical of our music. Those who concluded this would have done so because they could not interpret the picture in its true context.

To overcome these barriers to international understanding, the people

of Cortland embarked on their own international relations program a few years ago. By giving the people of Pershawar, Pakistan, some insight into what American life really is, they laid a sturdy foundation for good-will.

The program started in April, 1953, when Pakistan's ambassador, Mohammed Ali, was invited to speak at a fraternity banquet at Cortland State Teachers College. Mayor Kerr soon set up a committee which made plans for the ambassador's stay in town. Unfortunately he was called to Pakistan to become Prime Minister and could not arrange the trip.

But more work needs to be done for Pakistan to be sympathetic to American interests and customs. The prospects of a trade pact between Pakistan and the Soviet Union has created more need for understanding between our countries. Cortland has taken a constructive step in this direction and, as was reported recently in *The New York Herald Tribune*, "Non-officials who are sincerely friendly, make better representatives of their country than do appointed officials . . . These small-town Americans have disarmed suspicion and have been returned in full measure by the friendship they sought."

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Hockey on Horseback

One of Cornell's most exciting sports, polo continues to gain popularity. It will offer spectators some thrills at the coming national tournaments.

By MARGARET E. SATURN '57

BRANDISHING a broom, the player leaned over his horse's neck, made a valiant swing at the ball, lost his balance and fell off to the laughter of the crowd. This happened during interfraternity broomstick polo: the newest addition to polo at Cornell.

Polo has been played at Cornell since the artillery was here in 1919. Then it was played outdoors on Upper Alumni Field. Early practices were held in the confines of the Judging Pavilion, where much time was spent in rescuing the ball from under the stands. Indoor polo was initiated after the Riding Hall was built in 1934, but outdoor polo continued to be played until Upper Alumni Field was taken over for Army drill and intramural sports in 1942.

Polo is a very old game which orig-

inated in Tibet. The game itself is similar to hockey, and has often been called hockey on horseback. The object is to hit the ball into a goal with a mallet. Three men are on a side in indoor polo.

This ancient game still had supporters at Cornell even though there were no horses here between 1943 and 1946. But in the fall of 1946, the Army brought a group of horses back to Cornell mainly through the efforts of General Ralph Hospital. He had been an active promoter of polo at Cornell for many years and had led the campaign for funds to build the Riding Hall. He helped to organize equitation and polo after the Army sponsorship left and the cavalry disbanded in 1946.

A group of players and supporters organized the Cornell Polo Club with

Dr. S. J. Roberts, of the Veterinary College and a former Cornell player, as coach. The existing Army polo ponies were turned over to the club, and along with private ponies, the team was mounted.

ALTHOUGH the club is responsible to the athletic department, they are self-supporting and receive no money from them. The existence of polo at Cornell depends upon its financial success. They do, however, have a grant from Student Council to help pay for team equipment and travel expenses. Each player buys his own equipment, which includes boots, breeches, helmet, and mallets.

Various projects are undertaken by the club to pay for the horses' feed and equipment. During the football

(Turn to page 13)





COLLEGE OF AGRICULTURE

Students washing cattle in preparation for the Student Livestock Show to be held during Farm and Home Week.

The new Agricultural Engineering building will be open for the first time during Farm and Home Week, and the Agricultural Engineering Club will sponsor tables and displays of what will be taught in the new rooms.

The centennial for the building of the first butter factory in New York State will be commemorated by the Dairy Science Club. The club has prepared a brochure about the event, and an exhibit on the history of butter making.

Live wild animals from game farms throughout the state will be featured in an exhibit by the Conservation Club in Farnow.

Elections were held at a recent meeting. The newly elected officers for the Conservation Club are: president, David L. Mech '58; vice-president, David E. Austin '58; secretary, Constance M. Roberts '59, and treasurer, Gene A. Whitaker '59.

Clubs Prepare For Farm and Home Week

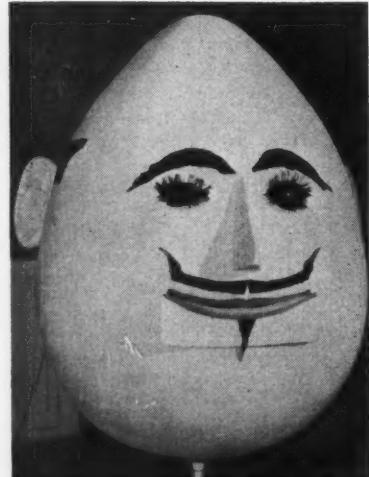
By CHRISTINE C. CARR '57

PREPARES for Farm and Home Week activities are taking the spotlight in upper campus clubs this month, and according to the new set-up, students are taking over more and more of the annual activities on the Ag Campus.

The Cornell Grange is planning an open meeting on Tuesday evening. Wib Justi, the National Grange Youth Deputy in charge of youth programs and leadership schools for the National Grange, will speak on the programs of building youth for tomorrow. Later that evening, the newly formed drill team will perform and the Grange Rec. Team will do a folk dance demonstration.

The Round-Up Club will sponsor the 42nd annual Farm and Home Week Livestock Show on Friday, March 23. Contestants are now at work preparing beef cattle, dairy cattle, and horses for the show.

Eggbert, the Talking Egg, will preside over the proceedings in Wing Hall. The Poultry Club has prepared an embryo exhibit, and will again fea-



"Eggbert", the talking egg, will preside over Farm and Home Week in Rice Hall.

ture the duck slide which was so popular with visitors last year. Students in the poultry department will take over daily lectures in culling, judging, and breed identification.

AG-DOMECON Council and Ho-Nun-De-Kah will co-sponsor the Swedish Exchange Booth again this year to raise money for the exchange program. In addition, Ag-Domecon Council has set up a social coordinating committee to unify the work of all activities during Farm and Home Week. This committee serves as a link between the clubs, Ag-Domecon Council, and the faculty. Through this body, students can voice ideas concerning Farm and Home Week to the faculty, and the faculty can in turn give advice and make recommendations. This committee has three functions. First, it is to promote better participation in both student and department sponsored activities. Secondly, it is to promote better student cooperation in publicizing and attending student events such as the square dance and the livestock show. Finally, it is to coordinate the functioning of the many concessions. The committee is composed of one representative from each club and is headed by Catherine R. Welch '56.

Ag Domecon Council and the coordinating Committee urge students to participate in the activities for the week. Signups for registration, ushering, and information committees will be taken in Mann Library and Martha Van Rensselaer beginning February 27. Let's make this a bigger and better Farm and Home Week by getting more people out to share in the work and fun.

Frozen Semen

By R. H. FOOTE and R. W. BRATTON

(Reprinted from *Farm Research*, Jan. 1956)

SINCE 1949, when a group of British scientists described how glycerol would "pull" bull sperm through a freezing and storage temperature of -110°F , much has been written about how this discovery could revolutionize the artificial breeding of dairy cattle. The application and further study of the British work was not undertaken in this country until 1952. Since then, agricultural stations, artificial breeding organizations, and private breeders in the United States have become interested in finding out how frozen semen might extend the usefulness of outstanding sires.

Much progress has been made, even though the answers to some problems have not come easily and many problems remain. Some of those who were enthusiastic at first have lost interest. Between those opposing points of view are some facts about frozen semen upon which we may base predictions regarding its future usefulness.

After preliminary laboratory studies, the first breeding experiment in New York State was conducted in the fall of 1953. The spermatozoa were frozen in a 20 percent egg yolk-citrate extender containing 7 percent glycerol, penicillin, and streptomycin, using Dry Ice and alcohol as the refrigerant.

The first results, with a limited number of breedings, were very encouraging. When frozen semen was thawed at the farm it gave just as good results as the fresh unfrozen semen. However, when the frozen semen was thawed at the bull stud and then shipped into the field after thawing it did not live well and did not give good fertility results. Had this procedure been successful, frozen semen could have been stored at the bull stud at -110°F , and then shipped as needed at $+40^{\circ}\text{F}$.

Frozen Semen at Present

A more extensive breeding trial was conducted with frozen semen in the spring of 1954. Over 2000 cows were bred by 149 technicians and affiliated with the New York Artificial Breeders' Cooperative, Inc., using frozen semen stored for 7 days and for 119 days at -110°F . Again the frozen semen gave fertility results practically equal to those for the unfrozen control semen used a day or two after collection.

These fertility results show experimentally that frozen semen, even after many weeks of storage can be as efficient as unfrozen semen in getting cows with calf. How many months or years the semen can be stored or retain this high fertility level is not presently known. About 30 percent of the spermatozoa are killed initially by the freezing process, and some more die during storage. These losses substantially reduce the number of useful spermatozoa available.

Costwise, the storage of frozen semen at -110°F is more expensive than the refrigeration of unfrozen semen at $+40^{\circ}\text{F}$. Packaging it in individual breeding vials, keeping these vials accurately identified and readily accessible during storage, and transferring them to the field without partially warming them during the transfer present problems,



COLLEGE OF AGRICULTURE

N. Y. A. B. C. Bulls hitched to exercisers for their daily workout.

too, but these do not appear insurmountable. Another problem concerns the organism responsible for vibriosis. In unfrozen semen this organism can be controlled with antibiotics, but, with present procedures, it survives in frozen semen. Thus, current research is aimed at developing methods of preserving frozen sperm cells in a disease-free medium as efficiently as possible, and at a cost that is competitive with that of unfrozen semen.

Against the relative costs of using frozen or unfrozen semen should be balanced the possible economic and genetic gains of each, so that they can be compared on a "balance sheet" as a net gain or loss. During the light breeding season, and particularly in the breeds where the fewest cows are inseminated, much of the semen produced by the bulls is not needed. Consequently, freezing the semen offers a way of storing the surplus from the better bulls until it is needed.

Advantages

Another advantage—the availability at all times of semen of selected bulls is useful in making planned meetings to produce young sires for a testing and selection program in artificial breeding. This advantage, together with the relatively long storage life of frozen semen, makes it of value for shipping to distant places. An example of this is the recent shipment made from Ithaca to the Philippines. Semen from genetically outstanding, vibrio-negative bulls was made available for the improvement of native Philippine cattle.

No one can predict with certainty the future of frozen semen. Yet its use in special matings, in overseas shipments, etc., has proved practical. Some areas in the United States are making use of frozen semen routinely. Many private breeders are using it, and it may prove to be of value in other classes of farm livestock. Research with beef cattle and swine is now in progress at Cornell.

From what is now known about frozen semen it is reasonable to expect that future research will make some progress in reducing its cost, and in reducing the present losses of spermatozoa during freezing and storage. To what extent it will compete with unfrozen semen in the future depends upon whether the progress in frozen semen research will be sufficient to offset any present advantage or future improvement in unfrozen semen, considering both costs and genetic gain. Either method of preservation is merely a tool for extending the use of genetically superior sires.

In the final accounting, the value of either method to any user, large or small, should be judged by whether the returns from the genetic gain are greater than its costs.



ST. LOUIS POST DISPATCH

At the Stix, Baer & Fuller store in St. Louis, Danforth Fellowship winners are oriented to the use of home economics in a department store.

relief patients how they should eat after leaving the hospital.

Food promotion takes many forms. Home economists at an advertising agency explain how they develop an interesting recipe in their test kitchens and then cooperate with the art and copy departments to create an effective advertisement. The problem is to plan a television food commercial that will demonstrate a recipe and sell the featured product.

Fashion turns to furniture and becomes timeless and timely as they tour the huge Lammert Furniture Company in St. Louis. The showrooms are galleries, ranging in styles from the 18th Century Room with its authentic pine paneling, antique wig stand, and Chippendale wing chair, to the modern Baker Room with its Oriental theme complemented by silk screens and Baker teakwood furniture. It is hard to realize that Lammert's is a store and not a museum.

WINNERS learn how business can affect the professional home economist. Executives from the Ralston Purina Company offer abundant advice in their lectures, including tips on letter writing to win jobs, the value of a good credit rating, and the importance and techniques of salesmanship. The marketing side of business is studied in a tour of the huge St. Louis Grain Exchange. The trading hall is a maze of ticker tape and grain samples until lectures on the process of "hedging" in buying grain on the future market are given. After the explanation, Danforth winners may not grasp the economics of it all, but they can appreciate the vastness of trade.

After two weeks in St. Louis, they reluctantly leave for the American Youth Foundation Camp on Lake Michigan, where the last two weeks of the Fellowship are spent. The program here is designed to promote development of the religious, mental, physical, and social aspects of their lives. Daily lectures on such subjects as "Christian Ethics," "Life's Essential," "Achieving Religious Maturity," and "The Art of Creative Living" are skillfully developed by college presidents, deans, and professors. The morning quiet periods and vespers on the Dune at sunset leave time for thinking—to evaluate the experiences in St. Louis and at Camp.

The fellowship can be the finishing touch toward a professional approach to home economics. The opportunity awaits a Danforth Girl from Cornell.

Program for Danforth Girls

The Danforth Fellowship offers valuable experiences to a winner from Cornell.

By JANET A. McGINNIS '56

HAVE you ever seen a television food commercial squeezed into a \$25,000 minute, watched weiners turned out by the mile, or seen chalk-dust blackboards crowded with grain quotations in the trading hall of a grain exchange? Experiences such as these are awaiting the winners of the Danforth Summer Fellowship.

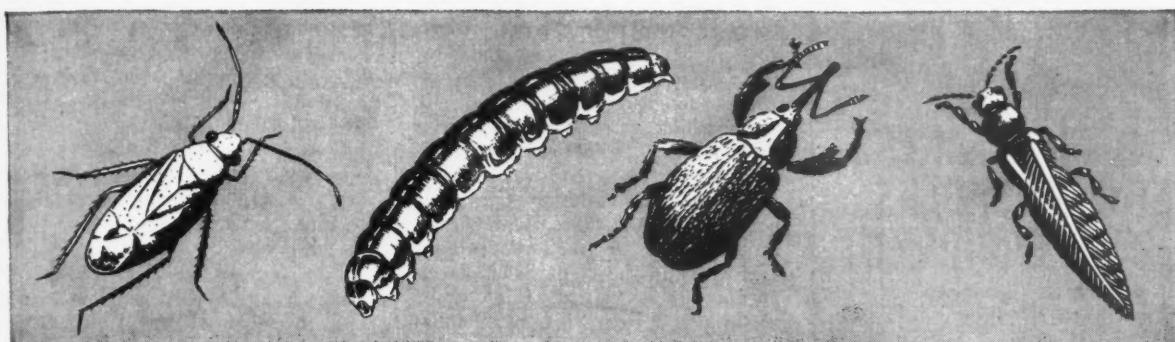
The Fellowship is a four-week summer program offered to an outstanding junior in a college of home economics from a leading university in each state. The "Danforth Girls," recommended by their faculties on academic standing and leadership, are sponsored by the Ralston Purina Company and the Danforth Foundation. The late William H. Danforth instigated the Fellowship "to help students make decisions—to enlarge their

horizons—to broaden their contacts—and to assist them in finding their places of largest service."

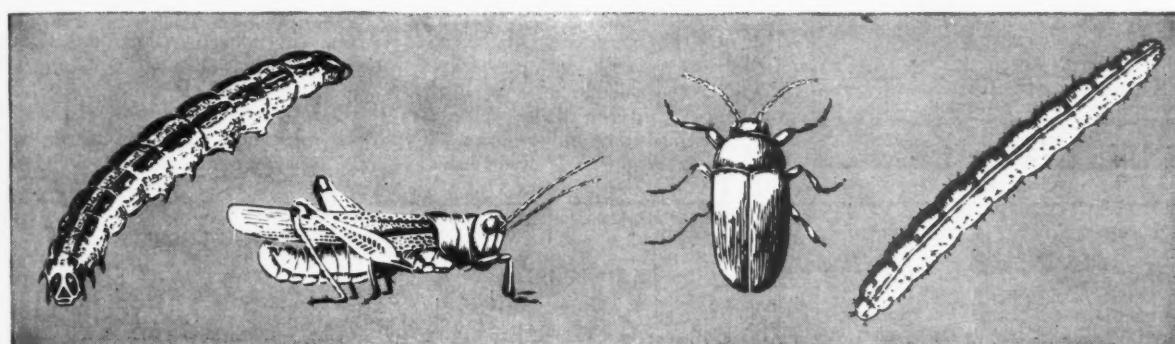
The first two weeks of the Fellowship are spent in St. Louis studying professional home economics and related fields. Tours and lectures cover job opportunities of particular interest to those in practically every major area of home economics.

IMAGINE yourself a dietitian? It isn't hard on a hospital tour when you meet dietetic interns who were Danforth Girls the year before. They enthusiastically explain their experiments in comparing an airline-type food service with the customary hospital food service. Some of them have devised visual aids to teach illiterate

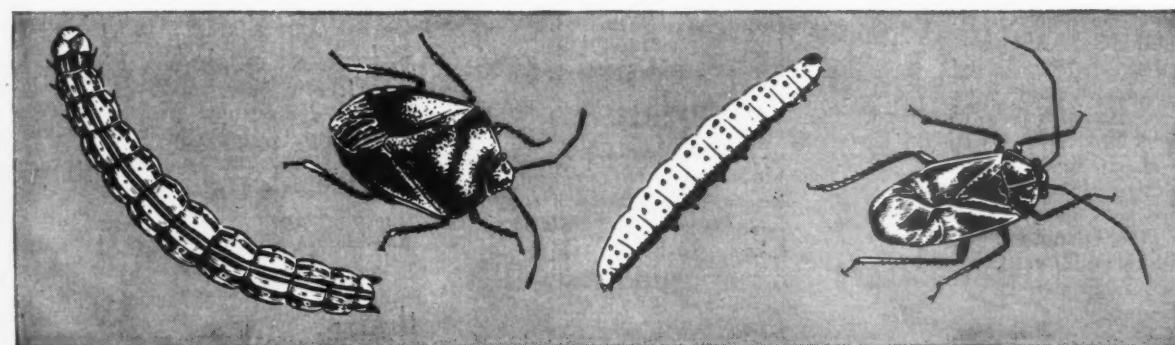
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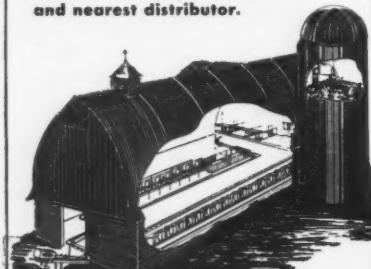
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Some Dairy Product Delights

By DAVID W. MENARD '59

HOW about a glass of blackberry milk, or do you prefer strawberry or cherry? In the near future, you might choose among milks of these different flavors.

For a long time, fruit flavored milk was nothing more than a delicious sounding idea. It did not become a reality until some method was found to prevent the acids in fruit juices from curdling the milk. Recently, however, experimenters at the Wageningen University in the Netherlands developed a process whereby high grade pectin was mixed with sugar, milk, and fruit juices to produce a successful, and delicious dairy product. Pectin is derived from fruit, and is commonly used to make jelly. Cornell researchers, under the supervision of Dr. R. F. Holland, head of the department of dairy industry, are striving to produce a similar product.

IF present plans are carried out, fruit flavored milk will go on trial during Farm and Home Week in the vending machines on the Cornell campus. Then visitors and students will have an opportunity to help determine

the future of this new beverage.

Over the past decade, consumers have had a chance to pass judgment on one other new dairy product, ice milk. A high protein dessert, similar to ice cream, ice milk contains little butterfat. In parts of the country where it is being sold, ice milk has received a favorable verdict, and has boosted milk sales. In fact, the production of ice milk has increased eight times during the last ten years.

AT present, New York is one of 11 states that does not permit the sale of ice milk. A frozen dessert law prohibits the sale of ice milk because it does not contain enough butter fat. However, it has been discovered that ice milk has not decreased ice cream sales in the states where it has been sold. It's lower cost, and low calorie content make it a popular dessert to people who would not ordinarily buy ice cream. It is creating new markets in these states, without infringing on existing sales of ice cream.

Both ice milk and fruit flavored milk offer new hope for increasing milk consumption in New York State.

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Hockey on Horseback

(from page 7)

season the team parks cars. The entire club turns out on game nights to tend the gate, sell programs, coffee, and doughnuts.

PLAYERS also do their own work at practices. Practice sessions are held from six to eight on two nights a week. Two other night classes are held for freshmen and other beginners. Each player is responsible for his assigned horse at these practices. The horses must be put away cool and dry and the tack cleaned. These ponies are the most important part of the equipment, and so their care is of paramount importance.

Cornell players this year represent several countries and there are several highly rated players. Team members are assigned ratings by the U.S. Polo Association. These ratings are handicaps of from zero to ten goals and apply only in non-collegiate games. Two Cornellians from Bogota, Colombia, Alberto de Santamaria and Camilo Saenz, have two goal ratings. Another rated player is Fred Rice from Hawaii with three goals. Five seniors are on the varsity this year, but there are several promising freshmen to take their places.

AN additional boost was given Cornell polo by the organization of the Ithaca Polo Club in the fall of 1951. This group of Ithaca businessmen pay an annual fee to use the Cornell facilities. They also donate the use of their ponies which they use in the summer. Finally, they are an avid group of supporters.

This month Cornell is sending seven ponies to New York City and will compete in the Sherman Memorial Tournament and the Indoor Intercollegiate Polo Championship Tournament. Cornell has won the intercollegiate tourney twice, last year and in 1937, and they are favored to repeat the victory.

Bigger Markets Mean More Milk Dollars

Even a high quality product like milk won't sell itself. Milk for Health, Inc. grew out of the need to educate people on the importance of milk. The more people know about the value of milk to them, the more they are going to use it.

Every 1% increase in the use of fluid milk means a 2¢ increase per hundred in farmers' prices. That's more than double their investment in Milk for Health.

Contributions to Milk for Health, Inc. are the only way New York Milkshed dairymen can support the work of both American Dairy Association and Dairy Councils.

Support Milk for Health—it's a good investment for you as a future farm leader, too!

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The *EMPIRE* Story

by R. V. Hemming,
General Manager
Empire Livestock Marketing
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Mr. Hemming

Farmers have a reputation for being able to size up a man quickly and accurately. Maybe that's why so many of them have turned to the Empire managers with trust and respect when they need help in marketing livestock. And when it comes to actual marketing of their livestock, they find their Empire Stockyards to be a good place to do business.

Right now, the new Brucellosis regulations have complicated livestock marketing. But the managers of the seven Empire Stockyards across the state are advising farmers and dealers every day, explaining the new regulations and helping them to buy and sell livestock within these new rules.

This helpful service, offered by all of the Empire managers, plus Empire's reputation for honesty and fairness, have built the Cooperative into a trusted, reliable marketing service serving farmers and dealers in New York State.

EMPIRE Livestock Marketing Cooperative

Regular weekly auction sales at
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Unsolved ? ?

**Who's to Ship How
Much Milk to Who
and for How Much?**

By DANIEL J. MICHL '58



LAWS more than 15 years old are governing a changing situation, and fair competition in the dairy industry is being impeded by these laws. The milk marketing orders pertaining to the sale of milk in New York City and urbanized northern New Jersey, which is part of the natural metropolitan milk market, do not adequately handle the situation as it now exists.

Since 1938, federal and state milk marketing orders have regulated the prices of milk supplied to New York City. The price which the farmer receives, called the blend price, is a computed price based on the use made of the milk. The Market Administrator, who is appointed by both the Secretary of Agriculture and the New York State Commissioner of Agriculture and Markets, sets the price on which the blend price is based. Milk which is sold at the Class I price is used as regular bottled milk, Class II milk is used either for bottled drinks or for cream sold in New York City, and Class III milk is used for any other purpose—butter, cheese, evaporated milk, condensed milk or cream to be sold in other areas. The blend price drops when less milk is sold at the high Class I price, and more must be sold at the lower prices.

THIS blend price has dropped because producers in New Jersey tend to use the New York pool to carry their surplus of milk. Having more milk to sell than they need for fluid use, they have joined the New York order, increasing the surplus in the pool. Therefore, the blend price has been depressed for producers subjected to control by the New York order.

The Office of Milk Industry, the milk marketing agency in New Jersey, tried to regulate the prices of milk supplied to the northern New Jersey marketing area. They had no success, however, because half of the milk comes from Pennsylvania and New York, and cannot be controlled by a New Jersey state order. Handlers un-

der the New York Order who sell milk in this area are required to get a lower price than if they sold this milk in New York City for fluid use. This difference in price had widened to \$1.00 at the end of 1955.

A hearing was held in 1952 to consider extending the New York order to include northern New Jersey. Producers in New Jersey opposed the extension, believing that their problems could be solved by improving the New York order. Opposition to this in New York prevented immediate changes in this order.

LAST April, the U.S. Department of Agriculture announced that a series of public meetings would be held to help clarify these issues, and to settle differences of opinion in the producing and marketing area. Public hearings were held in July, October, and November. At the first two meetings, producer groups proposed that the area to be considered under any new legislation should include 13 counties in northern New Jersey and Dutchess, Orange, Putnam, Rockland, Sullivan, and Ulster counties in New York.

As a result of the November meeting, Secretary Benson invited producers to submit proposals either revising the current order to include northern New Jersey, or presenting a separate order for New Jersey with accompanying changes in the New York order making the two complementary. These proposals were received by the Department of Agriculture by January 31, and are now being reviewed. When a decision is announced, it will be submitted to producers for final approval. If approved by two-thirds vote, it will be executed.

The new or revised order or orders must provide for preventing the transfer of surpluses, and must prevent disorderly shifting of supplies and outlets, due to present price differences between the New York and New Jersey metropolitan markets.



Better than 3 out of 5!

Why do better than three million out of the nation's nearly five million farmers belong to farmer cooperatives?

The latest figures from the Cooperative Service of the United States Department of Agriculture show an increase of 100,000 over a previous year, to a total of 7,600,000 memberships in 10,058 farmer cooperatives, with some farmers belonging to more than one farmer cooperative.

Farmers join together in cooperative organizations to gain the strength of united action — in buying the products they use, in selling the products they produce, in bargaining for fair prices for their products, and to get adequate representation of their views before legislative and governmental executive bodies.

That vigorous national growth in farmer cooperative membership has been reflected also in the New York Milkshed. Many new farmers are enjoying the advantages of effective joint action through the sixty-six milk producer cooperatives which in turn are members of

METROPOLITAN

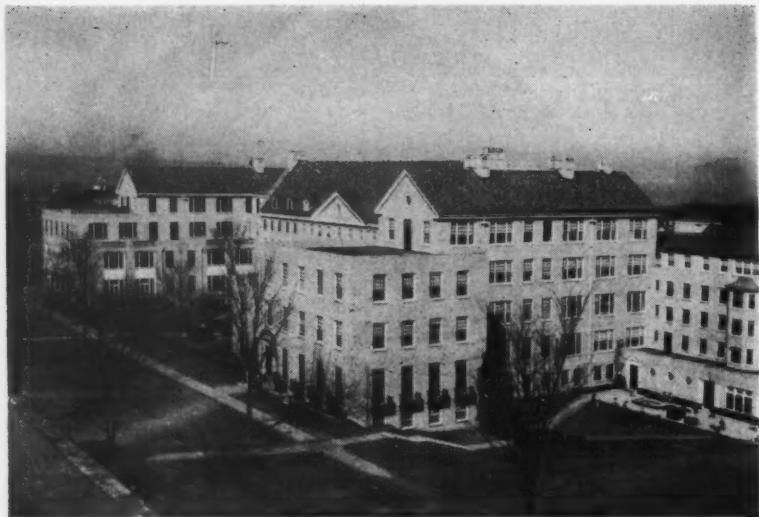
Cooperative Milk Producers' Bargaining Agency, Inc.

Room 118, Onondaga Hotel

Phone 2-3014

Syracuse, New York

"Dairy Cooperatives Working Together for Better Milk Marketing"



The homemakers' program during Farm and Home Week will take place in Martha Van Rensselaer Hall. Classes will meet in the auditorium, the amphitheater, and other rooms.

tein, the preparation of protein foods, and the importance of having protein three times a day will be topics of other lectures.

The daily program will open in Bailey Hall with a welcome address by Dean Helen G. Canoyer. Representatives of the College will then introduce the topics for the lecture series that day. Following this assembly at 9:30 a.m., the homemakers will meet in Martha Van Rensselaer at 11:00 a.m. for their first class. A symposium in the auditorium will close each day.

THREE outstanding speakers will appear at Bailey Hall that week. Tuesday will bring Ferris Owen, one of the 15 American farmers who toured behind the Iron Curtain. Mr. Owen was chairman of the committee which drew up recommendations for the improvement of Russian agriculture. Governor Averill Harriman will make his first official visit to a Farm and Home Week on Wednesday, March 21, and his Consumer Counsel, Dr. Persia Campbell, will speak on Thursday. Dr. Campbell's talk is entitled "How Much is \$1?"

Home economics students will work with agricultural students for the first time, on the Farm and Home Week Student Committee. Students from both colleges will co-chair eight sub-committees. The newly-organized social coordinating committee will synchronize several activities, including concessions, formerly handled by the College of Agriculture.

VOLUNTARY signups will be held at the end of the month, and permanent work records will give credit to those who volunteer. A faculty committee has asked students to work as ushers, at information desks, and other service positions. The Department of Institution Management requires student help to serve the throngs of visitors, and Omicron Nu has recruited student help for its snack service in the Student Lounge.

Due to the nature of the program, high school principals have been asked to send only a few selected students from the 11th and 12th grades, rather than entire classes.

This new streamlined program is intended to give the homemaker more for her day at Cornell. The programs will be on an adult level, and promise a successful Farm and Home Week for 1956.

Coeds for a Day

New streamlined program is offered for homemakers during Farm and Home Week

By JEAN E. JELLINEK '58

FORESIGHTED homemakers will come to the College of Home Economics' Farm and Home Week equipped with pencils and notebooks, for they will be attending classes just like the coeds.

A brand new program has been prepared for them. Instead of the many lectures, exhibits, demonstrations, and the crowds of high school students of previous years, the new program will be similar to an orderly college course.

EACH day under the theme "Consumer Learning Makes Better Living," the "coeds" will attend a series of lectures and demonstrations covering two comprehensive subjects. Homemakers may choose whichever topic interests them most, and a full day's attendance is advised for their greatest benefit. On Monday, Wednesday, and Friday, the homemakers may attend programs on management of kitchens and finances, or fabrics and ready-to-wear clothing. On Tuesday and Thursday, they may choose between protein foods and design.

According to Miss Barbara Snowman, the Department of Economics of

the Household and Household Management has combined the four divisions of its work in the program. The consumer's relation to money management, kitchen planning, household management, and current economic conditions are the subject of the department's illustrated lectures.

Although there will be no fashion show this year, the textile and clothing department's talks, for which Miss Margaret Humphrey is responsible, will be illustrated with the latest fashions. One lecture is devoted to fabrics, and another to fashions for modern living. A lecture on the contributions of research to textiles and clothing and another on ready-to-wear clothing complete the program.

MISS Frances Johnston is in charge of the food and nutrition department's program of lectures and demonstrations. One lecture concerns the consumer's protein needs, the importance of protein in the diet, and the methods of supplying the needs of family members. Of equal importance is a lecture on the world supply of protein, and on what can be done to increase it. Meat and non-meat sources of pro-

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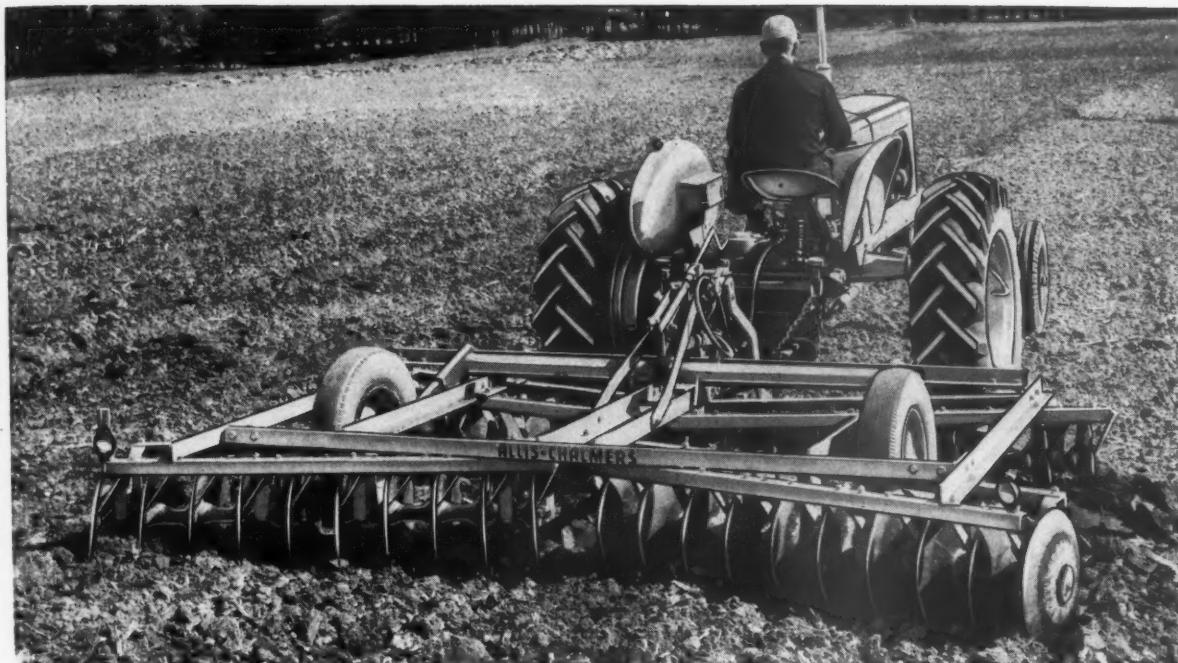
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